

Amendments to the Claims:

This following listing of claims will replace all prior versions and listings of claims in the application.

Listing of claims:

1. (Currently Amended) A bone plating system for fixation of bone comprising:
a bone plate having:
an upper surface;
a lower surface;
at least a first ~~one~~ threaded hole passing through the upper and lower surfaces;
and
at least a second ~~one~~ non-threaded hole passing through the upper and lower surfaces;
a first screw having a shaft with a thread for engaging bone and a head with a thread configured and dimensioned to mate with the first threaded hole; and
a second screw having a shaft with a thread for engaging bone and a head, wherein the first and second screws remain seated in their respective first and second holes for substantially as long as the bone plate is implanted;
wherein the bone plate includes a head portion configured and dimensioned to conform to a metaphysis of a bone and a shaft portion configured and dimensioned to conform to a diaphysis of a bone and wherein the head portion has a curved surface, includes an anterior fork substantially parallel to an anterior side of the shaft portion, and includes a posterior fork extending out from a posterior side of the shaft portion.
2. (Currently Amended) The bone plating system of claim 1, wherein the first ~~at least one~~ threaded hole has a double lead thread.
3. (Original) The bone plating system of claim 1, wherein the head of the first screw has a double lead thread.
4. (Original) The bone plating system of claim 1, wherein the head portion is twisted.

5. (Original) The bone plating system of claim 1, wherein the head portion is tapered.
6. (Original) The bone plating system of claim 1, wherein the head portion includes at least one suture hole.
7. (Original) The bone plating system of claim 1, wherein the shaft portion terminates in a tapered tail.
8. (Currently Amended) A bone plating system for fixation of bone comprising:
a bone plate having:
an upper surface;
a lower surface;
at least one threaded hole passing through the upper and lower surfaces; and
at least one non-threaded hole passing through the upper and lower surfaces;
a first screw having a shaft with a thread for engaging bone and a head with a thread
configured and dimensioned to mate with the threaded hole; and
a second screw having a shaft with a thread for engaging bone and a head, wherein
the first and second screws remain seated in their respective holes for
substantially as long as the bone plate is implanted;
wherein the bone plate further includes a head portion configured and dimensioned to
conform to a metaphysis of a bone and a shaft portion configured and dimensioned to
conform to a diaphysis of a bone, the head portion having a curved surface, an anterior fork
substantially parallel to an anterior side of the shaft portion, and a posterior fork extending
out from a posterior side of the shaft portion and wherein all of the screw holes located in the
head portion are at least partially threaded. The bone plating system of claim 1, wherein only
threaded holes are located in the head portion.
9. (Currently Amended) A bone plating system for fixation of bone comprising:
a bone plate having:
an upper surface;
a lower surface;
at least one threaded hole passing through the upper and lower surfaces; and

at least one non-threaded hole passing through the upper and lower surfaces;
a first screw having a shaft with a thread for engaging bone and a head with a thread
configured and dimensioned to mate with the threaded hole; and
a second screw having a shaft with a thread for engaging bone and a head, wherein
the first and second screws remain seated in their respective holes for
substantially as long as the bone plate is implanted;
wherein the bone plate further includes a head portion configured and dimensioned to
conform to a metaphysis of a bone and a shaft portion configured and dimensioned to
conform to a diaphysis of a bone, the head portion having a curved surface, an anterior fork
substantially parallel to an anterior side of the shaft portion, and a posterior fork extending
out from a posterior side of the shaft portion and ~~The bone plating system of claim 1,~~ wherein
at least a first threaded hole and a second threaded hole are located in the head portion, and
the first threaded hole and the second threaded hole have different diameters.

10. (Original) The bone plating system of claim 1, wherein at least a first threaded hole and a second threaded hole are located in the head portion, and the axes of the first and second threaded holes converge.

11. (Currently Amended) A bone plating system for fixation of bone comprising:

a bone plate having:

an upper surface;

a lower surface;

at least a first ~~one~~ threaded hole passing through the upper and lower surfaces;

and

at least a second ~~one~~ non-threaded hole passing through the upper and lower surfaces;

a first screw having a shaft with a thread for engaging bone and a head with a thread configured and dimensioned to mate with the first threaded hole; and

a second screw having a shaft with a thread for engaging bone and a head, wherein the first and second screws remain seated in their respective first and second holes for substantially as long as the bone plate is implanted;

wherein the bone plate includes a head portion configured and dimensioned to conform to a metaphysis of a bone and a shaft portion configured and dimensioned to

conform to a diaphysis of a bone and wherein the shaft portion includes at least one threaded hole and at least one non-threaded hole.

12. (Currently Amended) The bone plating system of claim 11, wherein the first ~~at least one~~ threaded hole has a double lead thread.

13. (Original) The bone plating system of claim 11, wherein the head of the first screw has a double lead thread.

14. (Original) The bone plating system of claim 11, wherein the head portion is twisted.

15. (Original) The bone plating system of claim 11, wherein the head portion is tapered.

16. (Original) The bone plating system of claim 11, wherein the head portion is curved.

17. (Original) The bone plating system of claim 11, wherein the head portion includes at least one suture hole.

18. (Original) The bone plating system of claim 11, wherein the shaft portion terminates in a tapered tail.

19. (Currently Amended) A bone plating system for fixation of bone comprising:

a bone plate having:

an upper surface;

a lower surface;

at least one threaded hole passing through the upper and lower surfaces; and

at least one non-threaded hole passing through the upper and lower surfaces;

a first screw having a shaft with a thread for engaging bone and a head with a thread configured and dimensioned to mate with the threaded hole; and

a second screw having a shaft with a thread for engaging bone and a head, wherein

the first and second screws remain seated in their respective holes for

substantially as long as the bone plate is implanted;

wherein the bone plate includes a head portion configured and dimensioned to

conform to a metaphysis of a bone and a shaft portion configured and dimensioned to conform to a diaphysis of a bone and wherein the shaft portion includes at least one threaded hole and at least one non-threaded hole and ~~The bone plating system of claim 11, wherein~~ only threaded screw holes are located in the head portion.

20. (Currently Amended) A bone plating system for fixation of bone comprising:

a bone plate having:

an upper surface;

a lower surface;

at least one threaded hole passing through the upper and lower surfaces; and

at least one non-threaded hole passing through the upper and lower surfaces;

a first screw having a shaft with a thread for engaging bone and a head with a thread

configured and dimensioned to mate with the threaded hole; and

a second screw having a shaft with a thread for engaging bone and a head, wherein

the first and second screws remain seated in their respective holes for

substantially as long as the bone plate is implanted;

wherein the bone plate includes a head portion configured and dimensioned to

conform to a metaphysis of a bone and a shaft portion configured and dimensioned to

conform to a diaphysis of a bone and wherein the shaft portion includes at least one threaded

hole and at least one non-threaded hole and the head portion includes ~~The bone plating~~

~~system of claim 11, wherein~~ at least a first threaded hole and a second threaded hole ~~are~~

~~located in the head portion~~, and the first threaded hole and the second threaded hole have

different diameters.

21. (Original) The bone plating system of claim 11, wherein at least a first threaded hole and a second threaded hole are located in the head portion, and the axes of the first and second threaded holes converge.

22. (Currently Amended) A bone plating system for fixation of bone comprising:

a bone plate having:

an upper surface;

a lower surface;

at least a first ~~one~~ threaded hole passing through the upper and lower surfaces;

and

at least a second ~~one~~ non-threaded hole passing through the upper and lower surfaces;

a first screw having a shaft with a thread for engaging bone and a head with a thread configured and dimensioned to mate with the first threaded hole; and

a second screw having a shaft with a thread for engaging bone and a head, wherein the first and second screws remain seated in their respective first and second holes for substantially as long as the bone plate is implanted;

wherein the bone plate includes a head portion configured and dimensioned to conform to a metaphysis of a bone and a shaft portion configured and dimensioned to conform to a diaphysis of a bone and wherein the shaft portion has a trapezoidal shaped cross-section in regions between the threaded and non-threaded holes for minimizing contact between bone and the lower surface.

23. (Currently Amended) The bone plating system of claim 22, wherein the first ~~at least one~~ threaded hole has a double lead thread.

24. (Original) The bone plating system of claim 22, wherein the head of the first screw has a double lead thread.

25. (Original) The bone plating system of claim 22, wherein the head portion is twisted.

26. (Original) The bone plating system of claim 22, wherein the head portion is tapered.

27. (Original) The bone plating system of claim 22, wherein the head portion is curved.

28. (Original) The bone plating system of claim 22, wherein the head portion includes at least one suture hole.

29. (Original) The bone plating system of claim 22, wherein the shaft portion terminates in a tapered tail.

30. (Currently Amended) A bone plating system for fixation of bone comprising:

a bone plate having:
an upper surface;
a lower surface;
at least one threaded hole passing through the upper and lower surfaces; and
at least one non-threaded hole passing through the upper and lower surfaces;
a first screw having a shaft with a thread for engaging bone and a head with a thread
configured and dimensioned to mate with the threaded hole; and
a second screw having a shaft with a thread for engaging bone and a head, wherein
the first and second screws remain seated in their respective holes for
substantially as long as the bone plate is implanted;
wherein the bone plate includes a head portion configured and dimensioned to
conform to a metaphysis of a bone and a shaft portion configured and dimensioned to
conform to a diaphysis of a bone and wherein the shaft portion has a trapezoidal shaped
cross-section in regions between the threaded and non-threaded holes for minimizing contact
between bone and the lower surface and ~~The bone plating system of claim 22, wherein only~~
threaded screw holes are located in the head portion.

31. (Currently Amended) A bone plating system for fixation of bone comprising:

a bone plate having:
an upper surface;
a lower surface;
at least one threaded hole passing through the upper and lower surfaces; and
at least one non-threaded hole passing through the upper and lower surfaces;
a first screw having a shaft with a thread for engaging bone and a head with a thread
configured and dimensioned to mate with the threaded hole; and
a second screw having a shaft with a thread for engaging bone and a head, wherein
the first and second screws remain seated in their respective holes for
substantially as long as the bone plate is implanted;
wherein the bone plate includes a head portion configured and dimensioned to
conform to a metaphysis of a bone and a shaft portion configured and dimensioned to
conform to a diaphysis of a bone and wherein the shaft portion has a trapezoidal shaped
cross-section in regions between the threaded and non-threaded holes for minimizing contact
between bone and the lower surface and the head portion has ~~The bone plating system of~~

~~claim 22, wherein~~ at least a first threaded hole and a second threaded hole ~~are located in the head portion~~, and the first threaded hole and the second threaded hole have different diameters.

32. (Original) The bone plating system of claim 22, wherein at least a first threaded hole and a second threaded hole are located in the head portion, and the axes of the threaded holes converge.

33. (Currently Amended) A bone plating system for fixation of bone comprising:

a bone plate having:

an upper surface;

a lower surface;

at least a first ~~one~~ threaded hole passing through the upper and lower surfaces;

and

at least a second ~~one~~ non-threaded hole passing through the upper and lower surfaces;

a first screw having a shaft with a thread for engaging bone and a head with a thread configured and dimensioned to mate with the first threaded hole; and

a second screw having a shaft with a thread for engaging bone and a head, wherein the first and second screws remain seated in their respective first and second holes for substantially as long as the bone plate is implanted,

wherein the bone plate includes a head portion configured and dimensioned to conform to a metaphysis of a bone and a shaft portion configured and dimensioned to conform to a diaphysis of a bone and wherein the head portion flares outward from the shaft.

34. (Currently Amended) The bone plating system of claim 33, wherein the first ~~at least one~~ threaded hole has a double lead thread.

35. (Original) The bone plating system of claim 33, wherein the head of the first screw has a double lead thread.

36. (Original) The bone plating system of claim 33, wherein the head portion is twisted.

37. (Original) The bone plating system of claim 33, wherein the head portion is tapered.

38. (Original) The bone plating system of claim 33, wherein the head portion is curved.

39. (Original) The bone plating system of claim 33, wherein the head portion includes at least one suture hole.

40. (Original) The bone plating system of claim 33, wherein the shaft portion terminates in a tapered tail.

41. (Currently Amended) A bone plating system for fixation of bone comprising:

a bone plate having:

an upper surface;

a lower surface;

at least one threaded hole passing through the upper and lower surfaces; and

at least one non-threaded hole passing through the upper and lower surfaces;

a first screw having a shaft with a thread for engaging bone and a head with a thread

configured and dimensioned to mate with the threaded hole; and

a second screw having a shaft with a thread for engaging bone and a head, wherein

the first and second screws remain seated in their respective holes for

substantially as long as the bone plate is implanted,

wherein the bone plate includes a head portion configured and dimensioned to conform to a metaphysis of a bone and a shaft portion configured and dimensioned to conform to a diaphysis of a bone and wherein the head portion flares outward from the shaft
and ~~The bone plating system of claim 33, wherein~~ only threaded screw holes are located in the head portion.

42. (Currently Amended) A bone plating system for fixation of bone comprising:

a bone plate having:

an upper surface;

a lower surface;

at least one threaded hole passing through the upper and lower surfaces; and

at least one non-threaded hole passing through the upper and lower surfaces;

a first screw having a shaft with a thread for engaging bone and a head with a thread configured and dimensioned to mate with the threaded hole; and
a second screw having a shaft with a thread for engaging bone and a head, wherein the first and second screws remain seated in their respective holes for substantially as long as the bone plate is implanted,
wherein the bone plate includes a head portion configured and dimensioned to conform to a metaphysis of a bone and a shaft portion configured and dimensioned to conform to a diaphysis of a bone and wherein the head portion flares outward from the shaft and includes ~~The bone plating system of claim 33, wherein~~ at least a first threaded hole and a second threaded hole ~~are located in the head portion,~~ and the first threaded hole and the second threaded hole have different diameters.

43. (Original) The bone plating system of claim 33, wherein at least a first threaded hole and a second threaded hole are located in the head portion, and the axes of the first and second threaded holes converge.

44. (Currently Amended) A bone plating system for fixation of bone comprising:

a bone plate having:

an upper surface;

a lower surface;

at least a first ~~one~~ threaded hole passing through the upper and lower surfaces;
and

at least a second ~~one~~ non-threaded hole passing through the upper and lower surfaces;

a first screw having a shaft with a thread for engaging bone and a non-threaded upper portion ~~head~~ for non-locking engagement with the first threaded hole; and

a second screw having a shaft with a thread for engaging bone and a head, wherein the first and second screws remain seated in their respective first and second holes for substantially as long as the bone plate is implanted.

45. (Original) The bone plating system of claim 44, wherein the bone plate includes a head portion configured and dimensioned to conform to a metaphysis of a bone and a shaft portion configured and dimensioned to conform to a diaphysis of a bone and wherein the head

portion flares outward from the shaft.

46. (Original) The bone plating system of claim 45, wherein the head portion is twisted.

47. (Original) The bone plating system of claim 45, wherein the head portion is tapered.

48. (Original) The bone plating system of claim 45, wherein the head portion is curved.

49. (Original) The bone plating system of claim 45, wherein the head portion includes at least one suture hole.

50. (Original) The bone plating system of claim 45, wherein the shaft portion terminates in a tapered tail.

51. (Currently Amended) A bone plating system for fixation of bone comprising:

a bone plate having:

an upper surface;

a lower surface;

at least one threaded hole passing through the upper and lower surfaces; and

at least one non-threaded hole passing through the upper and lower surfaces;

a first screw having a shaft with a thread for engaging bone and a non-threaded head for engagement with the threaded hole; and

a second screw having a shaft with a thread for engaging bone and a head, wherein the first and second screws remain seated in their respective holes for substantially as long as the bone plate is implanted

The bone plating system of claim 45, wherein the bone plate includes a head portion configured and dimensioned to conform to a metaphysis of a bone, the head portion flaring outward from a shaft portion configured and dimensioned to conform to a diaphysis of a bone, and wherein only threaded screw holes are located in the head portion.

52. (Currently Amended) A bone plating system for fixation of bone comprising:

a bone plate having:

an upper surface;

a lower surface;
at least one threaded hole passing through the upper and lower surfaces; and
at least one non-threaded hole passing through the upper and lower surfaces;
a first screw having a shaft with a thread for engaging bone and a non-threaded head
for engagement with the threaded hole; and
a second screw having a shaft with a thread for engaging bone and a head, wherein
the first and second screws remain seated in their respective holes for
substantially as long as the bone plate is implanted

~~The bone plating system of claim 45,~~ wherein the bone plate includes a head portion
configured and dimensioned to conform to a metaphysis of a bone, the head portion flaring
outward from a shaft portion configured and dimensioned to conform to a diaphysis of a
bone, and wherein at least a first threaded hole and a second threaded hole are located in the
head portion, and the first threaded hole and the second threaded hole have different
diameters.

53. (Original) The bone plating system of claim 45, wherein at least a first threaded hole and
a second threaded hole are located in the head portion, and the axes of the first and second
threaded holes converge.

54. (Currently Amended) The bone plating system of claim 44, wherein the first ~~at least one~~
threaded hole has a double lead thread.